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10/537,199	06/02/2005	Conradus Hubertus Joseph Theeuwen	ACM 2975 P1US	3168
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AKZO NOBEL INC. LEGAL & IP 120 WHITE PLAINS ROAD, SUITE 300 TARRYTOWN, NY 10591			PADEN, CAROLYN A	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CONRARDUS HUBERTUS JOSEPH THEEUWEN  
and BEREND JAN DIJK

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Appeal 2009-014174  
Application 10/537,199  
Technology Center 1700

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Before EDWARD C. KIMLIN, CHUNG K. PAK, and  
KAREN M. HASTINGS, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 1- 9. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

Claim 1 is illustrative of Appellants' invention:

1. A fruit-based product that comprises carboxymethyl cellulose (CMC), wherein the CMC is characterized by forming a gel at 25°C after high-shear dissolution in a 0.3 wt% aqueous sodium chloride solution, the final content of the CMC in the aqueous sodium chloride solution being 1 wt% for a CMC having a degree of polymerization (DP) of >4,000, 1.5 wt% for a CMC having a DP of 3,000-4,000, 2 wt% for a CMC having a DP of 1,500-<3,000, and 4 wt% for a CMC having a DP of <1,500, the gel being a fluid having a storage modulus (G') which exceeds the loss modulus (G'') over the entire frequency region of 0.01-10 Hz when measured on an oscillatory rheometer operating at a strain of 0.2.

The Examiner maintains, and Appellants appeal, the rejection under 35 U.S.C. § 103(a) of claims 1-9 as unpatentable over the combined prior art of Lange<sup>2</sup>, Nijhoff<sup>3</sup>, and Rigler<sup>4</sup>.

Appellants argue the rejected claims as a group (App. Br. 10-20). Thus, we select independent claim 1 as the representative claim on which our discussion will focus.

## MAIN ISSUE ON APPEAL

Did the Examiner err in determining that the claimed fruit-based product of claim 1 would have been obvious over the combined prior art,

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<sup>2</sup> US Patent 6,593,468 B1, issued Jul. 15, 2003.

<sup>3</sup> US Patent 3,418,133, issued Dec. 24, 1968.

<sup>4</sup> US Patent 3,928,252, issued Dec. 23, 1975.

because, as alleged by Appellants,

- a) the rejection is based on impermissible hindsight (App. Br. 13-15);  
and
- b) the rejection lacks evidence of a reasonable expectation of success  
and is based on an improper “obvious to try” rationale (App. Br. 15-20)?

We answer these questions in the negative.

## PRINCIPLES OF LAW

In assessing whether a claim to a combination of prior art elements would have been obvious, the question to be asked is whether the improvement of the claim is more than the predictable use of prior art elements according to their established functions. *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). The analysis need not seek out precise teachings directed to the specific subject matter of the claim, for it is proper to take account of the inferences and creative steps that a person of ordinary skill in the art would employ. *Id.* at 418.

“For obviousness under § 103, all that is required is a reasonable expectation of success.” *In re O'Farrell*, 853 F.2d 894, 903-04 (Fed. Cir. 1988).

## ANALYSIS with Factual Findings

We have thoroughly reviewed each of Appellants’ arguments for patentability. However, we are in agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art.

Accordingly, we will sustain the Examiner’s rejection for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

Appellants’ main contentions in the Briefs are that impermissible hindsight, as well as an improper “obvious to try” standard, was used by the Examiner in formulating the rejection. These arguments are of no persuasive merit. Appellants do not dispute that Lange discloses a carboxymethyl cellulose (CMC) with the required properties of claim 1 that may be used in food (e.g., App. Br. 12)<sup>5</sup>. As pointed out by the Examiner, both Nijhoff and Rigler exemplify that it was known in the art to use CMC as a thickener in fruit based products. (Ans. 5-6).

Appellants’ argument that since Lange discloses their CMC is also useful in cosmetics and pharmaceuticals, there is no suggestion to use them in a fruit-based food product is unavailing (App. Br. 15), in light of the evidence that one of ordinary skill in the art was well aware of these diverse applications of CMCs. Rigler teaches that CMC may be useful in other industrial applications as diverse as detergents, pharmaceuticals, and cosmetics, as well as in a fruit-based food (Rigler, col. 1, ll. 9-14).

Thus, we determine that the Examiner’s position on obviousness is reasonable in view of the applied prior art, and Appellants have not provided any convincing technical reasoning nor evidence that one of ordinary skill in

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<sup>5</sup> Appellants’ remark in the Reply Br., that the reference in their Specification to the WO equivalent to Lange is “not necessarily an admission that the claimed CMC is known” (Reply Br. 6; emphasis added) falls far short of persuasive merit as it contradicts Appellants’ previous position that Lange indeed “discloses CMCs according to the present invention” (App. Br. 12). Furthermore, in any event, it is untimely to raise this argument in the Reply Brief.

the art would not have, using no more than ordinary creativity, successfully used the CMC of Lange in a fruit-based food as required by claim 1 (*see generally* App. Br.; Reply Br.). In this context, we note that the use of a CMC known to be useful in food in a fruit-based food would have been nothing more than using a known food additive in accordance with its known function for the predictable result of imparting thickness to a fruit-based product. *See KSR*, 550 U.S. at 416 (“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”).

Accordingly, upon properly considering the prior art references as a whole, we agree with the Examiner that one of ordinary skill in the art would have been led to utilize the CMC of Lange, which is taught by Lange to be useful in food, in a *fruit-based* food product, as the use of CMC in fruit-based food products is a conventional use of CMC as evidenced by Nijhoff and Rigler (Ans. 4), with a reasonable expectation of successfully improving superabsorbent properties as taught by Lange (the CMC is “suitable for achieving appropriate rheological and water retention properties *for the . . . food sectors*” Lange, col. 3, ll. 43-46 emphasis added; see also col. 3, ll. 37-43).

As a final note, Appellants have not relied upon any evidence of unexpected results on this record.

Accordingly, the evidence as a whole supports the Examiner’s conclusion of obviousness, and on the record before us, we sustain the § 103 rejection of the claims as maintained by the Examiner.<sup>6</sup>

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<sup>6</sup> Only those arguments actually made by Appellants have been considered in this decision. Arguments which could have made but that Appellants

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**DECISION**

We affirm the Examiner's § 103 rejection of all the claims on appeal.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

**AFFIRMED**

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chose not to make have not been considered and are deemed to be waived.  
*See* 37 C.F.R. § 41.37(c)(1)(vii) (2010).